



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,430	10/06/2004	Josef Artelsmair	ARTELSMAIR ET AL 4	8516
25889	7590	06/28/2006	PCT	
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576				
			EXAMINER	
			SHAW, CLIFFORD C	
			ART UNIT	PAPER NUMBER
			1725	

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/510,430	<b>Applicant(s)</b> ARTELSMAIR ET AL.	
	<b>Examiner</b> Clifford C. Shaw	<b>Art Unit</b> 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1006</u> . | 6) <input type="checkbox"/> Other: ____.  |

**Detailed Action**

1.) Applicant is advised the no copies of the documents “AH” through “AN” listed on form PTO-1449 of the Information Disclosure Statement filed on 10/6/2004 have been received. These documents have been lined through by the examiner as “not considered”.

2.) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.) Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, it is not clear what is meant by “prior to the welding process proper, i.e., after the ignition of the electric arc”. In claims 2-4, 11, and 12, the references to a “constant energy” welding process are unclear. If a welding process is ongoing, its total energy expended is continually increasing. Energy can be constant for a welding process only when that process has ceased. In claim 5, the language “in particular” and “possibly” make it unclear what applicant intends to claim. In claims 6, 8, and 9, the use of “and/or” makes it unclear what applicant intends to claim. The other claims are inadequate under 35USC112 in that they depend from inadequate claims.

4.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1725

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5.) Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher et al. (3,864,542). Columns 2-5 in the patent to Fletcher et al. (3,864,542) disclose a welding method wherein the liquid melt is vibrated for a first period of time to determine an optimal frequency (corresponding to applicant's "start program") and then a weld is performed (corresponding to applicant's "welding process proper"). See in particular column 5, lines 5-15 for the division of the welding method between a start phase and a main welding phase. The claims differ from Fletcher et al. (3,864,542) in calling for performing the start program in a presettable period of time and in claim 2 calling for tack welding. These differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have completed the initial phase of the method of Fletcher et al. (3,864,542) within a predetermined period of time for such common sense reasons as to avoid overheating the workpiece at one location or to achieve greater overall process efficiencies. In regard to claim 2, it would have been obvious to have used the process of Fletcher et al. (3,864,542) for any conventional type of welding, including tack welding, satisfying the claim.

6.) Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geissler et al. (6,107,602). Figure 10 and the discussion at column 12, lines 35-65 disclose a welding method wherein the output of a power supply is pulsed for a predetermined time before assuming a constant current output. The claims differ from Geissler et al. (6,107,602) in calling for the use

Art Unit: 1725

of a non-consumable electrode, in calling for liquid melt vibration, and in calling for tack welding in claim 2. These differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have used the power supply of Geissler et al. (6,107,602) for any conventional welding technique, including non-consumable electrode welding and tack welding, as determined by routine considerations as to what type of weld needed to be made for a particular welding problem. In regard to the claimed liquid melt vibration, although this is not explicitly mentioned in the patent to Geissler et al. (6,107,602), it is clear that the initial welding current in Geissler et al. (6,107,602) will inherently oscillate the welding puddle at least to some extent.

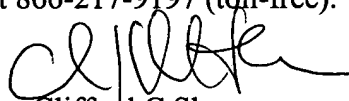
7.) The patent to Rygiol (3,781,511) is cited to show a prior art welding method wherein the liquid melt bath is vibrated.

Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Patrick J. Ryan, can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1725

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clifford C Shaw  
Primary Examiner  
Art Unit 1725

June 25, 2006